

Abstract

Lens Array Structure

A lens array structure comprises two birefringent lens arrays arranged in series, both being capable of operating to direct incident light of one polarisation into a respective directional distribution and to have substantially no effect on incident light of a polarisation perpendicular to said one polarisation. The lens arrays are relatively oriented such that incident light of two perpendicular polarisation components are directed into a directional distribution by a respective one of the birefringent lens arrays and not affected by other one of the birefringent lens arrays. Thus control of the polarisation allows switching between the effects of the two lens arrays. To allow switching into a third mode in which neither of the lens arrays has effect, one of the lens arrays may be active. The lens structure may be employed in a display apparatus to provide a switchable directional display.